

Work Order ID 112826

February-10-14 7:37:40 AM

Slip March 7

112826

Page 1

Item ID: D350-591-133 **D 350-591-133** Accept

Revision ID: **B 112826**

Item Name: Aft Maintenance Step (Fits LH or RH)

Start Date: 2/10/14 Start Qty: 10.00 ***10***

Required Date: 2/28/14 Req'd Qty: 10.00 ***10***

Reference:

N900040100

Setup Start ***NS1***

Stop ***NS2***

Cust Item ID:

Customer:

Approvals: Process Plan: W Date: _____ Tooling: _____

QC: _____ Date: _____ SPC (Y/N): _____

Run Start ***NR1***

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D2946	Rev B

100 0.00

100

DC

Document Control

DOCUMENT CONTROL

Memo

Photocopy bluefile and type labels as per PPP D350-591-133 CHG003

0.00

DAS
6
9-89

14-3-10

10

MLG 14-03-10

10

110 0.00

110

Large Fab

Large Fab

Large Fab

Memo

1-Cut D2622-120 extrusion to 62.06" long as per Dwg D2946

0.00

2-Deburr

Ensure that 57.09" minimum extrusion is kept and identify to be used for D350-591-215/-216.

10

8

14-02-22

Work Order ID 112826

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Page 2

Item ID: D350-591-133 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Aft Maintenance Step (Fits LH or RH)
 Start Date: 2/10/14 Start Qty: 10.00 *10* Cust Item ID:
 Required Date: 2/28/14 Req'd Qty: 10.00 *10* Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* QC Quality Control	QC6- Inspect dimensions to drawing Memo	0.00 0.00		Opc 14.2.24		10			
130 *130* Large Fab Large Fab	Large Fab Memo 1-Deburr and Bevel ends for welding 2-Weld (1) End Cap and (2) Lugs using Jig DT8440 as per Dwg D2946 A/RAluminum Rod 125127 127865 3-Grind End Cap welds flush	0.00 0.00				10	9		14.02.25
140 *140* QC Quality Control	QC9- Inspect visual per QSI004- Fusion Welds Memo	0.00 0.00				10	14.02.25		DAS 9 9-89

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Accept

N900040100

Setup Start *NS1*

Revision ID:

Item Name: Aft Maintenance Step (Fits LH or RH)

Stop *NS2*

Start Date: 2/10/14 **Start Qty:** 10.00 ***10***

Cust Item ID:

Required Date: 2/28/14 **Req'd Qty:** 10.00 ***10***

Customer:

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
 QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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150	QC5- Inspect part completeness to step on W/O	0.00
-----	---	------

150

QC	Memo	0.00
----	------	------

Quality Control

DAS
9
9-88

160	Chemical Conversion Coat per QSI005 4.1	0.00
-----	---	------

160

HandFinish	Memo	0.00
------------	------	------

Hand Finishing

170	QC7-Inspect Chemical Conversion Coat	0.00
-----	--------------------------------------	------

170

QC	Memo	0.00
----	------	------

Quality Control

DAS
19
9-89

14.03.04

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Accept

N900040100

Setup Start *NS1*

Stop *NS2*

Start Date: 2/10/14 **Start Qty:** 10.00 ***10***

Cust Item ID:

Required Date: 2/28/14 **Req'd Qty:** 10.00 ***10***

Customer:

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

180

0.00

180

Large Fab

0.00

Large Fab

Memo

Remove alodine prior to welding. Weld end cap as per Dwg D2946. Grind end cap weld flush.

A/R AL ROD BATCH: 125127

190

QC10- Inspect visual per QSI004- ground welds	0.00
---	------

190

QC

Memo	0.00
-------------	------

Quality Control

200

QC5- Inspect part completeness to step on W/O	0.00
---	------

200

OC

Memo	0.00
-------------	------

Quality Control

DAS
9
9-89

DAS
9
9-89

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Item ID: D350-591-133

Accept

N9000040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Aft Maintenance Step (Fits LH or RH)

Start Date: 2/10/14

Start Qty: 10.00

10

Cust Item ID:

Required Date: 2/28/14

Req'd Qty: 10.00

10

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

210

Chemical Conversion Coat per QSI005 4.1

0.00

210

HandFinish

Memo

0.00

Hand Finishing

10 14-3-15

220

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

220

Powdercoat

Memo

0.00

Powder Coating

START TIME: 10:00

OVEN TEMPERATURE: 320°

FINISH TIME: 12:30

10 14-3-12 DAS 34 9-88

230

Wing Walk as per dwg QSI005 4.4 Batch 112900

0.00

230

HandFinish

Memo

0.00

Hand Finishing

10 14-3-17

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Item ID: D350-591-133 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Aft Maintenance Step (Fits LH or RH)
Start Date: 2/10/14 Start Qty: 10.00 ***10*** Cust Item ID:
Required Date: 2/28/14 Req'd Qty: 10.00 ***10*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
240 *240* QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00				10			
250 *250* Packaging Packaging	Pick Kit Memo	0.00 0.00				10x			DAS 28 9-89
260 *260* QC Quality Control	QC4- 100% Inspect kits for completeness Memo	0.00 0.00				10			DAS 31 9-89

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Item ID: D350-591-133 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Aft Maintenance Step (Fits LH or RH)
 Start Date: 2/10/14 Start Qty: 10.00 ***10*** Cust Item ID:
 Required Date: 2/28/14 Req'd Qty: 10.00 ***10*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
270	Packaging	0.00							
270									
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPPD350-591-133								
	Location: _____								
	PPP Rev: _____								
280	QC21- Final Inspection - Work Order Release	0.00							
280									
QC	Memo	0.00							
Quality Control									

DAS
06
9-89

MAR 17 2014

10
Z

MLJ 14-03-18

MF 14-3-18

Picklist Print

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Page 1

Work Order ID: 112826
 Parent Item: D350-591-133
 Parent Item Name: Aft Maintenance Step (Fits LH or RH)

Start Date: 2/10/14 Required Date: 2/28/14
 Start Qty: 10.00 Required Qty: 10.00

Comments: IPP Rev:B05.10.14Modified step 10KJ/EC
 IPP Rev:B06.07.19D2946 @ rev.b EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
AN4-11A BOLT		Purchased	No			250	Each	578.0000		129362 ⁴⁰		14-3-10	DAS 28 9-89
				<u>Location</u>		<u>Loc Qty</u>			<u>Loc Code</u>				
				FG		20							
				120731		20							
				ST356		58							
				M126073		43							
				M126105		15							
				ST514		500							
				M127290		250							
				M127376		250							DAS 28 9-89
AN4-14A Bolt		Purchased	No			250	Each	316.0000		80			
				<u>Location</u>		<u>Loc Qty</u>			<u>Loc Code</u>				
				FG		5							
				122141		5							
				ST515		311							
				M127044		61							
				M127815		250							
AN4-16A Bolt		Purchased	No			250	Each	143.0000		80			DAS 28 9-89
				<u>Location</u>		<u>Loc Qty</u>			<u>Loc Code</u>				
				FG		5							
				121541		5							
				ST515		138							
				M127817		138							

DAS
6
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AN4-14A
Bolt

DAS
6
9-89

AN4-16A
Bolt

DAS
6
9-89

DAS
31
9-89

DAS
31
9-89

DAS
31
9-89

Picklist Print

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Work Order ID: 112826

Parent Item: D350-591-133

Parent Item Name: Aft Maintenance Step (Fits LH or RH)

Start Date: 2/10/14

Required Date: 2/28/14

Start Qty: 10.00

Required Qty: 10.00

DAS
28
9-89

AN4-7A
Bolt Purchased No

250 Each 174.0000 2 20

14-3-6

DAS
6
9-89

Location

Loc Qty

Loc Code

ST355

174

m126193

174

Manufactured No

250 Each 5.0000

20 12 110834 (28)

DAS
31
9-89

D2230-1
Mounting Lug

Location

Loc Qty

Loc Code

FG

4

84136

4

ST469

1

101834

1

Manufactured No

250 Each 356.0000

1109344 (16)

DAS
31
9-89

D2230-3
Mounting Lug

Location

Loc Qty

Loc Code

FG

3

89045

3

ST469

353

105940

114

108668

238

111818

1

Manufactured No

110 Each 203.0000

0.52 6

DAS
31
9-89

D2622-120C
Step Extrusion

Location

Loc Qty

Loc Code

HALL

173

105575

61

109575

112

WA003

30

101765

30

10

14-02-22

DAS
28
9-89

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Shop Packet Print

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Picklist Print

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Page 3

Work Order ID: 112826

Parent Item: D350-591-133

Parent Item Name: Aft Maintenance Step (Fits LH or RH)

D2732
Rubber Extrusion
cut (8) at 3.00"

Manufactured No

250

355.4842

Start Date: 2/10/14

Required Date: 2/28/14

Start Qty: 10.00

Required Qty: 10.00

DAS
28
9-89

14-3-4

Location

Loc Qty

Loc Code

ST410

355.4842368

107346

350.484237

94725

5

DAS
31
9-89

DAS
6
9-89

D2734

Manufactured No

130

Each

161.0000

20

Step End Plate

Location

Loc Qty

Loc Code

WA003

161

105712

101

99709

60

DAS
28
9-89

D2856-400

DAS
8
9-89

Abrasion Strip 4" Wide (Per Foot)
(2X) 4.00" X 7.20" per dwg

Manufactured No

250

193.1000

13

Location

Loc Qty

Loc Code

ST403

193.1

109578

193.1

DAS
31
9-89

D2944

Manufactured No

130

Each

16.0000

20

Step Mounting Plate

Location

Loc Qty

Loc Code

WA003

16

104654

16

DAS
28
9-89

D2945

Mounting Plate

Manufactured No

250

Each

12.0000

Location

Loc Qty

Loc Code

ST022

12

94542

12

DAS
31
9-89

DAS
6
9-89

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100

100

100

Picklist Print

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Page 4

Work Order ID: 112826

Parent Item: D350-591-133

Parent Item Name: Aft Maintenance Step (Fits LH or RH)

Start Date: 2/10/14

Required Date: 2/28/14

Start Qty: 10.00

Required Qty: 10.00

MS21042E4

Locknut

Purchased

No

250

Each

3,797.0000

14

140

DAS

28

9-89

14-3-6

Location

Loc Qty

Loc Code

GA

48

m126333

48

ST509

3738

m127255

1738

m127813

2000

ST518

11

m127376

11

DAS
6
9-89

DAS
31
9-89

NASH149D0463

WASHER

Purchased

No

250

Each

6,074.0000

14

140

DAS

28

9-89

Location

Loc Qty

Loc Code

ST294

1674

M127693

1674

ST510a

4400

M127813

1400

M127904

3000

DAS
6
9-89

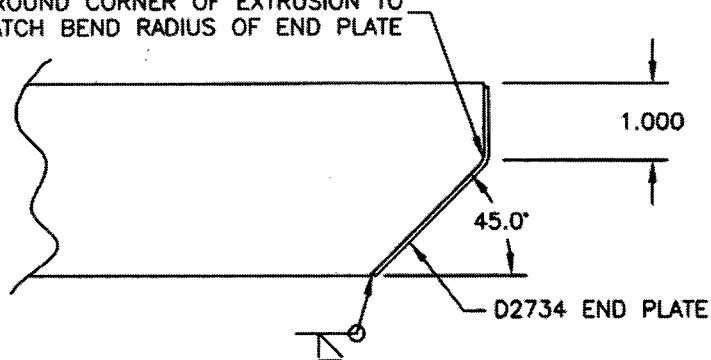
DAS
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Shop Packet Print

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ROUND CORNER OF EXTRUSION TO
MATCH BEND RADIUS OF END PLATE



TYPICAL STEP END DETAIL
NOT TO SCALE

D2946 STEP ASSEMBLY PARTS LIST

Part No.	Description	QTY
D2946	Step Assembly	X
D2622-63	STEP EXTRUSION*	1
D2734	END PLATE	2
D2944	STEP MOUNTING PLATE	2

*cut per drawing

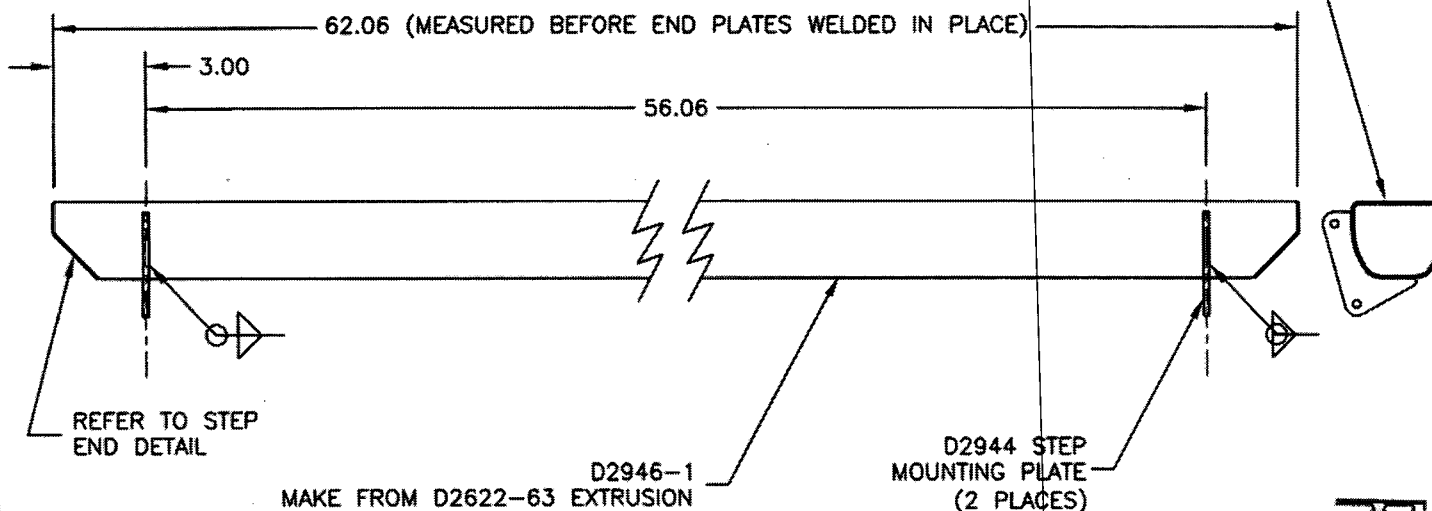
NOTE: ALL WELDS SHALL BE
100% VISUALLY
INSPECTED BY A
QUALIFIED INSPECTOR
PER DART QSI 004

APPLY BLACK ANTI-SKID
ON TOP SURFACE TO
BOTTOM OF TOP RADIUS



14-02-10

NO. 112 826.1105



D2946-041 STEP ASSEMBLY

D2946 STEP ASSEMBLY

- 1) MAKE FROM D2622 STEP EXTRUSION
- 2) WELD PER DART QSI 004
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT ENTIRE ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

DESIGN	DRAWN BY	DART AEROSPACE LTD
CP	PH	HAWKESBURY, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO.
		D2946
DATE	TITLE	REV. B
05.11.14	STEP ASSEMBLY	SHEET 1 OF 1
A	99.12.13	NEW ISSUE
B	05.11.14	UPDATE FINISHING NOTE
		SCALE 1:6

RELEASED
05.11.28

5. PARTS LIST

Qty -111A	Qty -113	Qty -115	Qty -117A	Qty -119	Qty -133	Part Number	Description
X						D350-591-111A	Heli-Access-Step ™, Long Step – High Skid
	X					D350-591-113	Heli-Access-Step ™, Short Step – High Skid
		X				D350-591-115	Heli-Access-Step ™, Short Step – Low Skid
			X			D350-591-117A	Heli-Access-Step ™, Pre-Flight Step
				X		D350-591-119	Heli-Access-Step ™, Long Step – Low Skid
					X	D350-591-133	Heli-Access-Step ™, Aft Maintenance Step
	1					D2310	STEP ASSEMBLY (HIGH-SHORT)
1						D2311	STEP ASSEMBLY (HIGH-LONG)
		1				D2354	STEP ASSEMBLY (LOW-SHORT)
				1		D2355	STEP ASSEMBLY (LOW-LONG)
					1	D2946-041	STEP ASSEMBLY (MAINTENANCE)
4	2	2	2	2		D2171	CLAMP
4	2	2	2	2		D2182B035	CUSHION
					4	D2230-1	MOUNTING LUG
					4	D2230-3	MOUNTING LUG
8	4	4	4	4		D2274	RADIUS BLOCK
			1			D2362-041	SUPPORT BRACKET
2	1			1		D2362-3	SUPPORT BRACKET
		1				D2362-5	SUPPORT BRACKET
2	1	1	1	1	2	D2856-400-720	ABRASION STRIP
					1	D2945	MOUNTING PLATE
2	2	2		2		AN3-37A	BOLT
					2	AN4-7A	BOLT
					4	AN4-11A	BOLT
					8	AN4-14A	BOLT
		4				AN4-16A	BOLT
8	4			4		AN4-20A	BOLT
1	1	1	4	1		AN4-22A	BOLT
4	4	4		4		AN960JD10	WASHER
10	6	2	4	6	14	AN960JD416	WASHER
		4				AN960JD416L	WASHER
2	2	2		2		MS21042L3	NUT
9	5	5	4	5	14	MS21042L4	NUT

Qty -121	Qty -122	Qty -123	Qty -124	Part Number	Description
X				D350-591-121	Heli-Access-Step ™, Short Step – High Skid, LH
	X			D350-591-122	Heli-Access-Step ™, Short Step – High Skid, RH
		X		D350-591-123	Heli-Access-Step ™, Short Step – Low Skid, LH
			X	D350-591-124	Heli-Access-Step ™, Short Step – Low Skid, RH
1				D2351-041	STEP ASSEMBLY (HIGH-SHORT, LH)
	1			D2351-042	STEP ASSEMBLY (HIGH-SHORT, RH)
		1		D2356-041	STEP ASSEMBLY (LOW-SHORT, LH)
			1	D2356-042	STEP ASSEMBLY (LOW-SHORT, RH)
1	1	1	1	D2230-1	MOUNTING LUG
1	1	1	1	D2230-3	MOUNTING LUG
1	1	1	1	D2856-400-720	ABRASION STRIP
2	2	2	2	AN3-37A	BOLT
3	3	3	3	AN4-13A	BOLT
4	4	4	4	AN960JD10	WASHER
6	6	6	6	AN960JD416	WASHER
2	2	2	2	MS21042L3	NUT
3	3	3	3	MS21042L4	NUT

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS D350-591 REV. G OR EARLIER
AND
INSTRUCTIONS OF CONTINUED AIRWORTHINESS ICA-D350-591 REV. 2 OR EARLIER

REF CANADIAN STC: SH92-6

REF FAA STC: SH967NE

For D350-591-121/-122/-123/-124/-133 steps, customers have the option of installing D2732-030 cushions under the D2230-1/-3 clamps to accommodate varying crosstube diameters and to improve fit. It is also acceptable to use longer or shorter AN4 bolts, and/or extra AN960JD416 washers under the nut to ensure 1.5 to 4 threads in safety. See Figure 1 on sheet 2 of this service instruction for reference.

For D350-591-121/-122 steps at CHG 005, D350-591-123/-124 steps at CHG 004, and D350-591-133 steps at CHG 003, the parts list of D350-591 Rev. G and ICA-D350-591 Rev. 2 is amended as follows:


ADD:

Qty -121	Qty -122	Qty -123	Qty -124	Qty -133	Part Number	Description
X					D350-591-121	<i>Heli-Access-Step</i> ™, Short Step – High Skid, LH
	X				D350-591-122	<i>Heli-Access-Step</i> ™, Short Step – High Skid, RH
		X			D350-591-123	<i>Heli-Access-Step</i> ™, Short Step – Low Skid, LH
			X		D350-591-124	<i>Heli-Access-Step</i> ™, Short Step – Low Skid, RH
				X	D350-591-133	<i>Heli-Access-Step</i> ™, Aft Maintenance Step
2	2	2	2	8	D2732-030	CUSHION
2	2	2	2	8	AN4-16A	BOLT






The DSI-9459-011 kit is available for customers with earlier model D350-591-121/-122/-123/-124 steps. Longer AN4 bolts are provided to fasten the clamps. The DSI-9459-013 kit is available for customers with earlier model D350-591-133 steps.

Qty -011	Qty -013	Part Number	Description
X		DSI-9459-011	Rubber Cushion Kit (for -121/-122/-123/-124 steps)
	X	DSI-9459-013	Rubber Cushion Kit (for -133 steps)
2	8	D2732-030	CUSHION
2	8	AN4-16A	BOLT

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
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